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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Young-Duk Kim

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EXAMINER

KIM, RICHARD H

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/092,513	KIM, YOUNG-DUK	
	<b>Examiner</b>	<b>Art Unit</b>	
	Richard H Kim	2871	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6,8-10 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-10 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 13 is objected to because of the following informalities: In line 12, "though hole" is unclear and is assumed to mean "through hole". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

1. Claim 13 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 13 recited that the connection portion and the joint portion is configured to be closer to the inner top surface of the through hole than the head portion. However, the specifications and the figures do not support the claims. For example, in Figure 9, both the head portion, joint portion and connection portion are equally distanced from the inner top surface of the through hole.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (AAPA) in view of Sakurai et al. (US 5,101,318).

Referring to claims 1 and 2, AAPA discloses a housing having a through hole (167b) and a hanging projection formed on an inner bottom surface of the through hole (167a); and a body portion inserted into the through hole, wherein the body portion is a single unit and divided into a plurality of integral portions (166) comprising a head portion having a hanging jaw formed on a bottom surface thereof and engaged with the hanging projection of the housing (166a); and a joint portion extended from the connection portion and connected to a power supply wire (163), wherein the engagement between the hanging jaw and the hanging projection push the head portion and the joint portion toward the inner top surface of the through hole to retrain movement of the body portion in the through hole (Fig 4). However, the reference does not disclose a connection portion extended from the head position and bent toward an inner top surface of the through hole; wherein the bending connection portion pushes the joint portion toward the inner top surface of the through hole to retrain movement of the body portion in the through hole, wherein the connection portion is bent at an angle at an angle of about 9 degrees to 10 degrees.

Sakurai et al. discloses a connection portion extended from the head position and bent toward an inner bottom surface of the through hole (20); wherein the bending of the connection portion pushes the joint portion toward an inner bottom surface of the through hole to retrain movement of the body portion in the through hole wherein the connection portion is bent at an angle at an angle of about 9 degrees to 10 degrees (20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a connection portion extended from the head position and bent toward an inner top surface of the through hole; wherein the bending connection portion pushes the joint portion toward the inner top surface of the through hole to retain movement of the body

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portion in the through hole, wherein the connection portion is bent at an angle at an angle of about 9 degrees to 10 degrees since one would be motivated to enable proper fitting between the female terminal and the cavity of the connector housing (col. 1, lines 39-40). Furthermore, although Sakurai et al. discloses that the connection portion extended from the head position and bent toward an inner *bottom* surface of the through hole; wherein the bending of the connection portion pushes the joint portion toward an inner *bottom* surface of the through hole to restrain movement of the body portion in the through hole, structurally, such a modification of being bent toward an inner *top* surface can be achieved by simply rotating the connector lengthwise by 180 degrees, without requiring any structural modification, and therefore would be obvious.

Referring to claim 13, AAPA discloses a housing having a through hole (167b) and a hanging projection formed on an inner bottom surface of the through hole (167a); and a body portion inserted into the through hole, wherein the body portion is a single unit and divided into a plurality of integral portions (166) comprising a head portion having a hanging jaw formed on a bottom surface thereof and engaged with the hanging projection of the housing (166a); and a joint portion extended from the connection portion and connected to a power supply wire (163). However, the reference does not disclose that the connection portion is extended from the head portion and bent toward an inner top surface of the through hole; and wherein the connection portion and joint portion is configured to be closer to the inner top surface of the through hole than the head portion.

Sakurai et al. discloses a connection portion extended from the head position and bent toward an inner bottom surface of the through hole (20); wherein the connection portion and

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joint portion is configured to be closer to the inner bottom surface of the through hole than the head portion (20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a connection portion extended from the head position and bent toward an inner top surface of the through hole; wherein the connection portion and joint portion is configured to be closer to the inner top surface of the through hole than the head portion since one would be motivated to enable proper fitting between the female terminal and the cavity of the connector housing (col. 1, lines 39-40). Furthermore, although Sakurai et al. discloses that the connection portion extended from the head position and bent toward an inner *bottom* surface of the through hole; wherein the connection portion and the joint portion is closer to the inner *bottom* surface, structurally, such a modification of being bent toward an inner *top* surface and closer to the *top* surface can be achieved by simply rotating the connector lengthwise by 180 degrees, without requiring any structural modification, and therefore would be obvious.

3. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Sakurai et al. and Lee (US 5,921,819).

Referring to claims 3 and 4, AAPA discloses a connector comprising a housing having a through hole and a hanging projection for formed at an inner bottom surface of the through hole (167a); and a body portion inserted into the through hole from on side opening of the through hole (166), and wherein the body portion is a single unit and divided into a plurality of integral portions (166) comprising a head portion having a hanging jaw engaged with the hanging

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projection of the housing (166a); and a joint portion extended from the connection portion and connected to a power supply wire (163). However, the reference does not disclose a connection portion extended from the head position and bent toward an inner top surface of the through hole; wherein the bending connection portion pushes the joint portion toward the inner top surface of the through hole to retrain movement of the body portion in the through hole, wherein the connection portion is bent at an angle at an angle of about 9 degrees to 10 degrees.

Sakurai et al. discloses a connection portion extended from the head position and bent toward an inner bottom surface of the through hole (20); wherein the bending of the connection portion pushes the joint portion toward an inner bottom surface of the through hole to retrain movement of the body portion in the through hole wherein the connection portion is bent at an angle at an angle of about 9 degrees to 10 degrees (20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a connection portion extended from the head position and bent toward an inner top surface of the through hole; wherein the bending connection portion pushes the joint portion toward the inner top surface of the through hole to retain movement of the body portion in the through hole, wherein the connection portion is bent at an angle at an angle of about 9 degrees to 10 degrees since one would be motivated to enable proper fitting between the female terminal and the cavity of the connector housing (col. 1, lines 39-40). Furthermore, although Sakurai et al. discloses that the connection portion extended from the head position and bent toward an inner *bottom* surface of the through hole; wherein the bending of the connection portion pushes the joint portion toward an inner *bottom* surface of the through hole to retrain movement of the body portion in the through hole, structurally, such a modification of being bent

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toward an inner *top* surface can be achieved by simply rotating the connector lengthwise by 180 degrees, without requiring any structural modification, and therefore would be obvious.

The reference further does not disclose a lamp for generating light; a power supply line having a first end connected to the lamp; and a connector connected to a second end of the power supply line.

Lee discloses a device comprising a lamp for generating light (Fig. 2, ref. 16); a power supply line having a first end connected to the lamp (Fig. 2, ref. 24); and a connector connected to a second end of the power supply line (Fig. 2, ref. 26).

It would have been obvious to one having ordinary skill in the art to employ a lamp for generating light; a power supply line having a first end connected to the lamp; and a connector connected to a second end of the power supply line since one would be motivated to illuminate a display by providing a backlight (abstract).

Referring to claim 5, AAPA, Sakurai et al. and Lee disclose the device previously recited. However, AAPA does not disclose the device wherein a distance between the head portion and the inner bottom surface of the through hole is different from a distance between the joint portion and the inner bottom surface of the through hole and a distance between the connection portion and the inner bottom surface of the through hole.

Sakurai et al. discloses a device wherein a distance between the head portion and the inner top surface of the through hole (21) is different from a distance between the joint portion and the inner top surface of the through hole (22) and a distance between the connection portion and the inner top surface of the through hole (20).



It would have been obvious to one having ordinary skill in the art at the time the invention was made for the distance between the head portion and the inner bottom surface of the through hole to be different from a distance between the joint portion and the inner bottom surface of the through hole and a distance between the connection portion and the inner bottom surface of the through hole since one would be motivated to ease connecting a disconnecting the power supply line to the lamp. According to Sakurai et al., since the sleeve has an enlarged diameter portion at the front side thereof, the amount that the flexible contact part can be flexibly displaced in the radial direction of the sleeve become relatively large, which makes insertion of the male terminal to the female receptacle section easy” (Sakurai et al., col. 2, lines 49-55). Moreover, although Sakurai et al. discloses a varying distance between the portions of the body and the top surface, instead of the bottom surface, such a modification could easily be achieved by rotating the connector lengthwise by 180 degrees.

4. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Sakurai et al., Lee and Ogo et al. (US 6,533,428 B1).

Referring to claims 8 and 9, AAPA, Sakurai et al. and Lee disclose the device previously recited. However, the references do not disclose that a light guiding unit for guiding light generating from the lamp; and a display unit for displaying an image in response to the light guided by the light guiding unit.

Ogo et al. discloses a device comprising a lamp for generating light (Fig. 9, ref. 1); a light guiding unit for guiding the light generated from the lamp (Fig. 9, ref. 3); and a display unit for display an image in response to the light guided by the light guiding unit (Fig. 9, ref. 6).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a light guiding unit for guiding light generating from the lamp; and a display unit for displaying an image in response to the light guided by the light guiding unit since such device are well known in the art to guide light from a light source in order to illuminate a display.

Referring to claim 10, AAPA, Sakurai et al., Lee and Ogo et al. disclose the device previously recited. However, AAPA does not disclose the device wherein a distance between the head portion and the inner bottom surface of the through hole is different from a distance between the joint portion and the inner bottom surface of the through hole and a distance between the connection portion and the inner bottom surface of the through hole.

Sakurai et al. discloses a device wherein a distance between the head portion and the inner top surface of the through hole (21) is different from a distance between the joint portion and the inner top surface of the through hole (22) and a distance between the connection portion and the inner top surface of the through hole (20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made for the distance between the head portion and the inner bottom surface of the through hole to be different from a distance between the joint portion and the inner bottom surface of the through hole and a distance between the connection portion and the inner bottom surface of the through hole since one would be motivated to ease connecting a disconnecting the power supply line to the lamp. According to Sakurai et al., "since the sleeve has an enlarged diameter portion at the front side thereof, the amount that the flexible contact part can be flexibly displaced in the radial direction of the sleeve become relatively large, which makes insertion of

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the male terminal to the female receptacle section easy” (see col. 2, lines 49-55). Moreover, although Sakurai et al. discloses a varying distance between the portions of the body and the top surface, instead of the bottom surface, such a modification could easily be achieved by rotating the connector lengthwise by 180 degrees.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

6. In response to Applicant's argument that neither references disclose or suggest the device wherein the bending of the connection portion and the engagement between the hanging jaw and the hanging projection push the head portion and the joint portion toward the inner top surface of the through hole to restrain movement of the body portion in the through hole, Examiner submits that the combination of AAPA and Sakurai et al. disclose the newly added limitations according to the above rejection.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard H Kim whose telephone number is (571)272-2294. The examiner can normally be reached on 9:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard H Kim  
Examiner  
Art Unit 2871

RHK

  
TARIFUR R. CHOWDHURY  
PRIMARY EXAMINER